

```
ring/chain nodes :
    13 14
chain bonds :
   4-14 7-8 7-13 7-21 8-9 9-10 10-22 11-21 12-22
ring bonds :
   1-2 1-6 2-3 3-4 4-5 5-6
exact/norm bonds :
   1-2 1-6 2-3 3-4 4-5 4-14 5-6 7-8 7-13 8-9 9-10
exact bonds :
    7-21 10-22 11-21 12-22
Match level :
    1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:CLASS 9:CLASS 10:CLASS 11:CLASS 12:CLASS 13:CLASS 14:CLASS 21:CLASS 22:CLASS
fragments assigned product role:
    containing 1
fragments assigned reactant/reagent role/>
   containing 7
node mappings:
    4:7 5:21 6:22
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chain nodes :

ring nodes :

1 2 3 4 5 6

7 8 9 10 11 12 21 22

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09/514,023
FILE 'CAPLUS' ENTERED AT 12:10:33 ON 17 JAN 2002
=> s (RCM OR metathesis) AND ("ionic liquid" OR "ionic liquids")
           715 RCM
          9282 METATHESIS
        214009 "IONIC"
        589654 "LIQUID"
           240 "IONIC LIQUID"
                ("IONIC"(W) "LIQUID")
        214009 "IONIC"
        105472 "LIQUIDS"
           591 "IONIC LIQUIDS"
                 ("IONIC"(W) "LIQUIDS")
            15 (RCM OR METATHESIS) AND ("IONIC LIQUID" OR "IONIC LIQUIDS")
L7
=> d 1-15
```

- L7 ANSWER 1 OF 15 CAPLUS COPYRIGHT 2002 ACS
- AN 2001:749749 CAPLUS
- DN 136:37465
- TI Ruthenium-catalyzed olefin metathesis in ionic liquids
- AU Buijsman, Rogier C.; van Vuuren, Elizabeth; Sterrenburg, Jan Gerard
- CS Lead Discovery Unit, N.V. Organon, Oss, 5340 BH, Neth.
- SO Organic Letters (2001), 3(23), 3785-3787 CODEN: ORLEF7; ISSN: 1523-7060
- PB American Chemical Society
- DT Journal
- LA English
- RE.CNT 44
- RE
- (2) Ahmed, M; Tetrahedron Lett 1999, V40, P8657 CAPLUS
- (3) Ahn, Y; Org Lett 2001, V3, P1411 CAPLUS
- (4) Armstrong, S; J Chem Soc, Perkin Trans 1 1998, P371 CAPLUS
- (5) Brown, R; J Am Chem Soc 2001, V123, P1254 CAPLUS
- (8) Chauvin, Y; Angew Chem, Int Ed Engl 1995, V34, P2698 CAPLUS
- ALL CITATIONS AVAILABLE IN THE RE FORMAT

- L7 ANSWER 2 OF 15 CAPLUS COPYRIGHT 2002 ACS
- AN 2001:694124 CAPLUS
- TI 1-Butyl-3-methylimidazolium cobalt tetracarbonyl [bmim][Co(CO)4]: a catalytically active organometallic ionic liquid
- AU Brown, Richard J. C.; Dyson, Paul J.; Ellis, David J.; Welton, Thomas
- CS Department of Chemistry, Imperial College of Science, Technology and Medicine, South Kensington, London, SW7 2AY, UK
- SO Chem. Commun. (Cambridge, U. K.) (2001), (18), 1862-1863 CODEN: CHCOFS; ISSN: 1359-7345
- PB Royal Society of Chemistry
- DT Journal
- LA English
- RE.CNT 27
- RE
- (2) Adams, C; Chem Commun 1999, P1043 CAPLUS
- (3) Adams, C; Green Chem 2000, P21 CAPLUS
- (5) Alper, H; Tetrahedron Lett 1977, P2861 CAPLUS
- (6) Bach, C; Angew Chem, Int Ed Engl 1996, V35, P1974 CAPLUS
- (7) Brasse, C; Organometallics 2000, V19, P3818 CAPLUS
- ALL CITATIONS AVAILABLE IN THE RE FORMAT

```
ANSWER 3 OF 15 CAPLUS COPYRIGHT 2002 ACS
L7
     2001:686289 CAPLUS
AN
DN
     136:5510
     Synthesis and application of ionic\ liquid
ΤI
ΑU
     Li, Ruxiong; Wang, Jianji
     Dep. Chem., Beijing Inst. Petrochemical Technology, Beijing, 102600,
CS
Peop.
     Rep. China
     Huaxue Shiji (2001), 23(4), 211-215
SO
     CODEN: HUSHDR; ISSN: 0258-3283
     Huagongbu Huaxue Shiji Xinsizhan
```

LA Chinese

DT

Journal; General Review

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ANSWER 4 OF 15 CAPLUS COPYRIGHT 2002 ACS
AN
     2001:416865 CAPLUS
     135:33478
DN
ΤI
     Process for preparing ambient temperature ionic liquids
     Seddon, Kenneth Richard; Carmichael, Adrian John; Earle, Martyn John
IN
     Queen's University of Belfast, UK
     PCT Int. Appl., 18 pp.
     CODEN: PIXXD2
DΤ
     Patent
LΑ
     English
FAN.CNT 1
                                          APPLICATION NO. DATE
    PATENT NO.
                      KIND DATE
                                          ______
                                                            20001201
                            20010607
                                          WO 2000-GB4584
PΙ
     WO 2001040146
                      A1
         W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU,
            CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL,
            IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA,
            MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI,
            SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM,
            AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
            DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
            BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
PRAI GB 1999-28290
                           19991201
                     Α
    CASREACT 135:33478
RE.CNT 3
RE
(1) Beilstein Information Service; FILE: XFIRE
(2) Bp Chem Int Ltd; WO 9521871 A 1995 CAPLUS
```

(3) Howarth; TETRAHEDRON LETT 1997, V38(17), P3097 CAPLUS

- L7 ANSWER 5 OF 15 CAPLUS COPYRIGHT 2002 ACS
- AN 2000:876019 CAPLUS
- DN 134:193157
- TI Electrophilic nitration of aromatics in **ionic liquid** solvents
- AU Laali, Kenneth K.; Gettwert, Volker J.
- CS Department of Chemistry, Kent State University, Kent, OH, 44242, USA
- SO J. Org. Chem. (2001), 66(1), 35-40 CODEN: JOCEAH; ISSN: 0022-3263
- PB American Chemical Society
- DT Journal
- LA English
- RE.CNT 23

RE

- (1) Adams, C; Chem Commun 1999, P1043 CAPLUS
- (3) Boon, J; Proceedings of the Joint International Symposium on Molten Salts; 6th 1987, P979 CAPLUS
- (4) Carmichael, A; Org Lett 1999, V1, P997 CAPLUS
- (5) Carmichael, H; Chem Britain 2000, V36, P36 CAPLUS
- (6) Coon, C; J Org Chem 1973, V38, P4243 CAPLUS
- ALL CITATIONS AVAILABLE IN THE RE FORMAT

- L7 ANSWER 6 OF 15 CAPLUS COPYRIGHT 2002 ACS
- 2000:712179 CAPLUS AN
- DN 134:116251
- TI Ionic liquids as new-generation reactive solvents
- ΑU Nowicki, Janusz
- CS
- Inst. Ciezkiej Syntezy Org., Kedzierzyn-Kozle, Pol. Chemik (2000), 53(8), 223-226 CODEN: CHGLAY; ISSN: 0009-2886 SO
- Zaklad Wydawniczy CHEMPRESS PB
- DTJournal; General Review
- LΑ Polish

1

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ANSWER 7 OF 15 CAPLUS COPYRIGHT 2002 ACS
L7
     2000:645656 CAPLUS
AN
     133:237853
DN
     Olefin metathesis in the presence of ionic
TI
     liquids and transition metal carbene catalysts.
     Gurtler, Chistoph; Jautelat, Manfred
IN
     Bayer A.-G., Germany
PA
     Eur. Pat. Appl., 16 pp.
     CODEN: EPXXDW
DΤ
     Patent
     German
LΑ
FAN.CNT 2
                      KIND
                            DATE
                                           APPLICATION NO.
                                                            DATE
     PATENT NO.
                                           _____
                                                            _____
                                           EP 2000-103339
                                                             20000221
     EP 1035093
                       A2
                            20000913
PΙ
                            20010124
                      A3
     EP 1035093
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO
                                           DE 1999-19909600 19990305
     DE 19909600
                       Α1
                            20000907
                                           DE 1999-19927912 19990618
     DE 19927912
                       A1
                            20001221
                            19990305
PRAI DE 1999-19909600 A
     DE 1999-19927912 A
                            19990618
```

CASREACT 133:237853; MARPAT 133:237853

OS

- ANSWER 8 OF 15 CAPLUS COPYRIGHT 2002 ACS L7
- 2000:559914 CAPLUS ΑN
- DN 133:281895
- ΤI Ionic Phosphine Ligands with Cobaltocenium Backbone: Novel Ligands for the.
- Highly Selective, Biphasic, Rhodium-Catalyzed Hydroformylation of 1-Octene
 - in Ionic Liquids
- Brasse, Claudia C.; Englert, Ulli; Salzer, Albrecht; Waffenschmidt, ΑU Horst;
 - Wasserscheid, Peter
- Institut fuer Anorganische Chemie, RWTH Aachen, Aachen, D 52056, Germany
- Organometallics (2000), 19(19), 3818-3823 CODEN: ORGND7; ISSN: 0276-7333
- PB American Chemical Society
- DTJournal
- LA English
- CASREACT 133:281895 os
- RE.CNT 29
- RE
- (1) Bader, R; Chimia 1996, V50, P99 CAPLUS
- (2) Bosch, B; Inorg Chim Acta 1998, V270, P446 CAPLUS
- (3) Casey, C; J Am Chem Soc 1992, V114, P5535 CAPLUS (4) Casey, C; J Am Chem Soc 1997, V119, P11817 CAPLUS
- (5) Chauvin, Y; EP 0776880 A1 1996 CAPLUS
- ALL CITATIONS AVAILABLE IN THE RE FORMAT

- L7 ANSWER 9 OF 15 CAPLUS COPYRIGHT 2002 ACS
- AN 1999:418575 CAPLUS
- DN
- ΤI The phase behaviour of 1-alkyl-3-methylimidazolium tetrafluoroborates; ionic liquids and ionic liquid crystals
- ΑU Holbrey, John D.; Seddon, Kenneth R.
- The QUESTOR Centre, The Queen's University of Belfast, Belfast, BT9 5AG, CS
- J. Chem. Soc., Dalton Trans. (1999), (13), 2133-2140 SO CODEN: JCDTBI; ISSN: 0300-9246
- Royal Society of Chemistry
- DT Journal
- LA English
- RE.CNT 37

RE

- (2) Bonhote, P; Inorg Chem 1996, V35, P1168 CAPLUS

- (3) Bonhote, P; Inorg Chem 1996, V35, P1168 CAPLUS (4) Bowlas, C; Chem Commun 1996, P1625 CAPLUS (5) Busico, V; J Phys Chem 1983, V87, P1631 CAPLUS
- (7) Chauvin, Y; Angew Chem, Int Ed Engl 1995, V34, P2698 CAPLUS
- ALL CITATIONS AVAILABLE IN THE RE FORMAT

```
L7
     ANSWER 10 OF 15 CAPLUS COPYRIGHT 2002 ACS
AN
     1999:35834 CAPLUS
DN
     130:183391
TI
     Ionic liquid-polymer gel electrolytes from hydrophilic
     and hydrophobic ionic liquids
ΑU
     Fuller, Joan; Breda, Amy C.; Carlin, Richard T.
     SAF/AQRT, 1060 Air Force Pentagon, Washington, DC, 20330-1060, USA
CS
SO
     J. Electroanal. Chem. (1998), 459(1), 29-34
     CODEN: JECHES; ISSN: 0368-1874
PB
     Elsevier Science S.A.
DT
     Journal
LΑ
    English
RE.CNT 22
(4) Carlin, R; US 5552238 1996 CAPLUS
(8) Carlin, R; Molten Salt X 1996, V96-7, P362 CAPLUS
```

- (9) Chauvin, Y; Angew Chem Int Ed 1995, V34, P2698 CAPLUS (10) Chauvin, Y; CHEMTECH 1995, V25(9), P26 CAPLUS
- (12) Fuller, J; J Electrochem Soc 1997, V144, P3881 CAPLUS
- ALL CITATIONS AVAILABLE IN THE RE FORMAT

- L7 ANSWER 11 OF 15 CAPLUS COPYRIGHT 2002 ACS
- AN 1998:757839 CAPLUS
- DN 130:95508
- TI Novel organic ionic liquids (OILs) incorporating cations derived from the antifungal drug miconazole
- AU Davis, James H., Jr.; Forrester, Kerri J.; Merrigan, Travis
- CS Department of Chemistry, University of South Alabama, Mobile, AL, 36608-0002, USA
- SO Tetrahedron Lett. (1998), 39(49), 8955-8958 CODEN: TELEAY; ISSN: 0040-4039
- PB Elsevier Science Ltd.
- DT Journal
- LA English
- RE.CNT 9

RE

- (1) Bonhote, P; Inorg Chem 1996, V35, P1168 CAPLUS
- (3) Chauvin, Y; CHEMTECH 1995, V25, P26 CAPLUS
- (4) Chauvin, Y; Ind Eng Chem Res 1995, V34, P2698 CAPLUS
- (6) Elaiwi, A; J Chem Soc Dalton Trans 1995, P3467 CAPLUS
- (8) Hussey, C; Pure Appl Chem 1988, V60, P1763 CAPLUS
- ALL CITATIONS AVAILABLE IN THE RE FORMAT

- L7 ANSWER 12 OF 15 CAPLUS COPYRIGHT 2002 ACS
- AN 1997:63222 CAPLUS
- DN 126:95293
- TI Two-phase catalysis in nonaqueous ionic liquids
- AU Chauvin, Yves
- CS Fr
- SO Actual. Chim. (1996), (7), 44-46 CODEN: ACCHDG; ISSN: 0151-9093
- PB Dunod
- DT Journal; General Review
- LA French

- L7 ANSWER 13 OF 15 CAPLUS COPYRIGHT 2002 ACS
- AN 1996:683340 CAPLUS
- DN 126:46733
- TI Nonaqueous room-temperature ionic liquids: a new class of solvents for catalytic organic reactions
- AU Olivier, Helene; Chauvin, Yves
- CS Institut Français du Petrole, Rueil-Malmaison, 92506, Fr.
- SO Chem. Ind. (Dekker) (1996), 68(Catalysis of Organic Reactions), 249-263 CODEN: CHEIDI; ISSN: 0737-8025
- PB Dekker
- DT Journal
- LA English

- L7 ANSWER 14 OF 15 CAPLUS COPYRIGHT 2002 ACS
- AN 1995:805520 CAPLUS
- DN 124:7940
- TI Nonaqueous ionic liquids as reaction solvents
- AU Chauvin, Yves; Olivier-Bourbigou, Helene
- CS Institut Français du Petrole, Rueil-Malmaison, 92506, Fr.
- SO CHEMTECH (1995), 25(9), 26-30 CODEN: CHTEDD; ISSN: 0009-2703
- DT Journal; General Review
- LA English

- ANSWER 15 OF 15 CAPLUS COPYRIGHT 2002 ACS
- AN 1992:531126 CAPLUS
- DN 117:131126
- Air and water stable 1-ethyl-3-methylimidazolium based ionic ΤI liquids
- ΑU Wilkes, John S.; Zaworotko, Michael J.
- Frank J. Seiler Res. Lab., United States Air Force Acad., CO, 80840, USA J. Chem. Soc., Chem. Commun. (1992), (13), 965-7 CS
- SO CODEN: JCCCAT; ISSN: 0022-4936
- DT Journal
- English LA

=> => d 1-15 kwic

- L7 ANSWER 1 OF 15 CAPLUS COPYRIGHT 2002 ACS
- TI Ruthenium-catalyzed olefin metathesis in ionic liquids
- AB Ionic liq. 1-butyl-3-methylimidazolium hexafluorophosphate ([bmim]PF6) is described as an effective medium for ring-closing metathesis (RCM) using Grubbs catalysts. When [bmim]PF6 was used as solvent, the RCM showed high conversions and a broad substrate tolerance. Thus, (H2C:CHCH2)2NSO2C6H4Me-4 gave 1-tosyl-2,5-dihydro-1-H-pyrrole. The ionic liq. [bmim]PF6 and the ruthenium catalyst. . .
- ST ring closing metathesis olefin ruthenium ionic liq; ionic liq olefin ring closing metathesis ruthenium
- IT Metathesis

(ring-closing; ruthenium-catalyzed ring-closing metathesis of dienes in ionic liqs.)

IT Green chemistry

Ionic liquids

Metathesis catalysts

(ruthenium-catalyzed ring-closing metathesis of dienes in ionic liqs.)

- IT 3195-24-2 50487-72-4 164298-40-2 241821-32-9 241821-33-0 379712-21-7
 - RL: RCT (Reactant); RACT (Reactant or reagent)
 (ruthenium-catalyzed ring-closing metathesis of dienes in
 ionic liqs.)
- IT 16851-72-2 21622-00-4 164298-43-5 241821-44-3 241821-45-4 379712-22-8
 - RL: SPN (Synthetic preparation); PREP (Preparation) (ruthenium-catalyzed ring-closing metathesis of dienes in ionic ligs.)

- L7 ANSWER 2 OF 15 CAPLUS COPYRIGHT 2002 ACS
- TI 1-Butyl-3-methylimidazolium cobalt tetracarbonyl [bmim][Co(CO)4]: a catalytically active organometallic ionic liquid
- AB An ambient temp. liq. transition metal carbonyl anion has been prepd. in

metathesis reaction between [bmim]Cl ([bmim]+ =
1-butyl-3-methylimidazolium cation) and Na[Co(CO)4]; the ionic liq.
catalyzes the debromination of 2-bromoketones.

L7 ANSWER 3 OF 15 CAPLUS COPYRIGHT 2002 ACS

TI Synthesis and application of ionic liquid

 $\ensuremath{\mathsf{AB}}$. . . liqs. Over one hundred ionic liqs. have been prepd. The methods

of their synthesis can be classified into two categories: metathesis and acid-base neutralization. They can be applied to sepn. technol., electrochem. and chem. synthesis, particularly catalytic reaction.

IT Catalysts

Ionic liquids
Organic synthesis
 (synthesis and application of ionic liq.)

L7 ANSWER 4 OF 15 CAPLUS COPYRIGHT 2002 ACS
TI Process for preparing ambient temperature ionic liquids
AB . . . substituted imidazoles, pyridines and substituted pyridines.
The so-formed products can be subsequently transformed into different ionic liqs. or salts by metathesis. E.g., 1-ethyl-3-methylimidazolium trifluoroethanoate, prepd. by reaction of 1-methylimidazole and Et trifluoroethanoate in ethanenitrile, was treated with hexafluorophosphoric

acid to give. . .

- L7 ANSWER 5 OF 15 CAPLUS COPYRIGHT 2002 ACS
- TI Electrophilic nitration of aromatics in **ionic liquid** solvents
- AB . . . ionic liqs. was extended. Counterion dependency of the NMR spectra of the [emim] [X] liqs. was used to gauge counterion exchange (metathesis) during nitration. Ionic liq. nitration is a useful alternative to classical nitration routes due to easier product isolation and recovery. . .

- L7 ANSWER 6 OF 15 CAPLUS COPYRIGHT 2002 ACS
- TI Ionic liquids as new-generation reactive solvents
- IT Hydroformylation

Metathesis

(ionic liqs. as new-generation reactive solvents and their use in olefin)

```
ANSWER 7 OF 15 CAPLUS COPYRIGHT 2002 ACS
TI
     Olefin metathesis in the presence of ionic
     liquids and transition metal carbene catalysts.
     Cyclic and/or polymeric materials were prepd. by metathesis of
AΒ
     starting materials contg. .gtoreq.2 functional groups in the form of
     (substituted) alkenes or alkynes in the presence of ionic.
ST
     olefin metathesis ionic liq transition metal carbene catalyst;
     cyclohexene prepn; pyrrole dihydro prepn
IT
     Metathesis
       Metathesis catalysts
        (olefin metathesis in the presence of ionic liqs. and
        transition metal carbene catalysts)
IT
     Amines, miscellaneous
     Metal alkoxides
     Perfluoro compounds
     RL: MSC (Miscellaneous)
        (olefin metathesis in the presence of ionic liqs. and
        transition metal carbene catalysts)
IT
     Solvents
        (org.; olefin metathesis in the presence of ionic liqs. and
        transition metal carbene catalysts)
IT
     139220-25-0
                   172222-30-9
                                 210570-04-0
                                               211686-91-8
                                                             223905-02-0
     RL: CAT (Catalyst use); USES (Uses)
        (olefin metathesis in the presence of ionic liqs. and
        transition metal carbene catalysts)
IT
     110-83-8P, Cyclohexene, preparation 63603-33-8P
                                                         86766-64-5P
     174574-30-2P
                    220399-95-1P
                                   292609-14-4P, Azacyclotridec-11-en-2-one
     292609-15-5P
     RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP
     (Preparation)
        (olefin metathesis in the presence of ionic liqs. and
        transition metal carbene catalysts)
IT
     7723-14-0D, Phosphorus, compds.
                                       79917-90-1, 1-Methyl-3-butylimidazolium
     chloride
     RL: MSC (Miscellaneous)
        (olefin metathesis in the presence of ionic liqs. and
        transition metal carbene catalysts)
IT
                             498-66-8, Bicyclo[2.2.1]hept-2-ene
     124-02-7, Diallylamine
                                                                   762-72-1
     3710-30-3, 1,7-Octadiene
                                71663-71-3, 3-Amino-1,7-octadiene 78805-03-5
                  127022-49-5
                                176839-63-7
     90925-51-2
     RL: RCT (Reactant)
        (olefin metathesis in the presence of ionic liqs. and
        transition metal carbene catalysts)
     505-07-7, Pyridinium tetrafluoroborate
IT
                                              543-54-4, Pyridinium hydrogen
             1124-64-7, N-Butylpyridinium chloride 4124-42-9, Ammonium
              7446-70-0, Aluminum chloride (AlCl3), miscellaneous
     7803-63-6, Ammonium hydrogen sulfate
                                          13826-83-0, Ammonium
     tetrafluoroborate 16941-11-0, Ammonium hexafluorophosphate
16941-15-4,
     Pyridinium hexafluorophosphate 65039-09-0, 1-Methyl-3-ethylimidazolium
    chloride
              174501-64-5
    RL: MSC (Miscellaneous)
        (solvent; olefin metathesis in the presence of ionic liqs.
       and transition metal carbene catalysts)
```

L7 ANSWER 8 OF 15 CAPLUS COPYRIGHT 2002 ACS

TI Ionic Phosphine Ligands with Cobaltocenium Backbone: Novel Ligands for the

Highly Selective, Biphasic, Rhodium-Catalyzed Hydroformylation of 1-Octene

in Ionic Liquids

IT 14024-48-7, Bis (acetylacetonato) cobalt

RL: RCT (Reactant)

(coordinative **metathesis** with lithium phosphinocyclopentadienide)

IT 1079-66-9, Diphenylphosphinous chloride

RL: RCT (Reactant)

(metathesis with alkali metal and thallous cyclopentadienides)

IT 4984-82-1, Sodium cyclopentadienide 16733-97-4, Lithium cyclopentadienide 34822-90-7, Cyclopentadienylthallium RL: RCT (Reactant)

(metathesis with phosphinous chloride)

IT 83272-80-4P, ((Diphenylphosphino)cyclopentadienyl)lithium

acetylacetonato complex and cobaltous chloride)

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation) (prepn. and coordinative metathesis with cobalt

- L7 ANSWER 9 OF 15 CAPLUS COPYRIGHT 2002 ACS
- TI The phase behaviour of 1-alkyl-3-methylimidazolium tetrafluoroborates; ionic liquids and ionic liquid crystals
- AB Air- and H2O-stable 1-alkyl-3-methylimidazolium tetrafluoroborate salts [Cn-mim] [BF4] (n=0-18) were prepd. by **metathesis** from the corresponding chloride or bromide salts. The salts were characterized by 1H NMR and IR spectroscopy, microanal., polarizing optical. . .

- L7 ANSWER 10 OF 15 CAPLUS COPYRIGHT 2002 ACS
- TI Ionic liquid-polymer gel electrolytes from hydrophilic and hydrophobic ionic liquids
- AB . . . of 3.77 and 7.86 V, resp. New inexpensive preparative routes for

the hydrophilic ionic liqs. were developed that utilize the metathesis reaction of EMICI with the appropriate ammonium salt in acetone or acetonitrile to produce high purity products.

- L7 ANSWER 11 OF 15 CAPLUS COPYRIGHT 2002 ACS
- TI Novel organic ionic liquids (OILs) incorporating cations derived from the antifungal drug miconazole
- AB The imidazole-ring contg. antifungal drug miconazole reacts with a variety

of alkyl iodides to form imidazolium cations. After anion metathesis with NaPF6, org. ionic liqs. (OILs) are obtained. These new ionic liqs. are believed to be the first to be. . .

L7 ANSWER 12 OF 15 CAPLUS COPYRIGHT 2002 ACS
TI Two-phase catalysis in nonaqueous ionic liquids
AB . . . quaternary ammonium cations (e.g. N,N'-dialkylimidazolium) and anions of controlled coordination ability, are effective solvents for organometallic-catalyzed hydrogenation, hydroformylation, dimerization and
metathesis reactions.

IT Catalysis
Dimerization catalysts
Hydroformylation catalysts
Hydrogenation catalysts
Hydrogenation catalysts
Metathesis catalysts
(two-phase catalysis in nonaq. ionic liqs.)

L7 ANSWER 13 OF 15 CAPLUS COPYRIGHT 2002 ACS

TI Nonaqueous room-temperature ionic liquids: a new class of solvents for catalytic organic reactions

AB . . . simple decantation. We have deliberately used these media for catalytic reactions of industrial petroleum interest such as dimerization,

alkylation, hydrogenation, metathesis, hydroformylation of olefins and cyclodimerization of butadiene. This extends the field of two-phase catalysis to substrates, complexes and ligands which. . .

IT Metathesis catalysts

(catalytic olefin metathesis in ionic liq. solvents)

IT 109-68-2, 2-Pentene

RL: RCT (Reactant)

(catalytic olefin metathesis in ionic liq. solvents)

- L7 ANSWER 14 OF 15 CAPLUS COPYRIGHT 2002 ACS
- TI Nonaqueous ionic liquids as reaction solvents
- AB Mixts. of quaternary ammonium salts and organoaluminum compds. are very effective solvents for metal catalyzed olefin dimerization and metathesis. Ionic liqs. show promise as solvents for two-phase catalysis;26 refs.
- IT Double decomposition catalysts
 (two-phase; metal catalyzed olefin metathesis in ionic liqs.
 as solvents)

ANSWER 15 OF 15 CAPLUS COPYRIGHT 2002 ACS Air and water stable 1-ethyl-3-methylimidazolium based ionic TI liquids 7761-88-8, Silver nitrate, reactions IT 563-63-3, Silver acetate 7783-99-5, Silver nitrite 10294-26-5, Silver sulfate 14104-20-2, Silver tetrafluoroborate RL: RCT (Reactant) (metathesis by, of ethylmethylimidazolium iodide) IT 35935-34-3 RL: RCT (Reactant) (metathesis of, by silver salts) Connecting via Winsock to STN Trying 3106016892...Open Welcome to STN International! Enter x:x LOGINID:ssspta1611txm PASSWORD: TERMINAL (ENTER 1, 2, 3, OR ?):2 Welcome to STN International Web Page URLs for STN Seminar Schedule - N. America NEWS IMSworld Pharmaceutical Company Directory name change NEWS 2 Sep 17 to PHARMASEARCH Korean abstracts now included in Derwent World Patents NEWS 3 Oct 09 Index Number of Derwent World Patents Index updates increased NEWS 4 Oct 09 NEWS 5 Oct 15 Calculated properties now in the REGISTRY/ZREGISTRY File NEWS 6 Oct 22 Over 1 million reactions added to CASREACT NEWS 7 Oct 22 DGENE GETSIM has been improved NEWS 8 Oct 29 AAASD no longer available NEWS 9 Nov 19 New Search Capabilities USPATFULL and USPAT2 NEWS 10 Nov 19 TOXCENTER(SM) - new toxicology file now available on STN NEWS 11 Nov 29 COPPERLIT now available on STN NEWS 12 Nov 29 DWPI revisions to NTIS and US Provisional Numbers NEWS 13 Nov 30 Files VETU and VETB to have open access NEWS 14 Dec 10 WPINDEX/WPIDS/WPIX New and Revised Manual Codes for 2002 NEWS 15 Dec 10 DGENE BLAST Homology Search NEWS 16 Dec 17 WELDASEARCH now available on STN NEWS 17 Dec 17 STANDARDS now available on STN NEWS 18 Dec 17 New fields for DPCI NEWS 19 Dec 19 CAS Roles modified NEWS 20 Dec 19 1907-1946 data and page images added to CA and CAplus August 15 CURRENT WINDOWS VERSION IS V6.0c, NEWS EXPRESS CURRENT MACINTOSH VERSION IS V6.0 (ENG) AND V6.0J (JP), AND CURRENT DISCOVER FILE IS DATED 07 AUGUST 2001 STN Operating Hours Plus Help Desk Availability NEWS HOURS General Internet Information NEWS INTER NEWS LOGIN Welcome Banner and News Items Direct Dial and Telecommunication Network Access to STN NEWS PHONE

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=> file casreact

COST IN U.S. DOLLARS

SINCE FILE ENTRY TOTAL SESSION

FULL ESTIMATED COST

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0.15

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FILE CONTENT: 1974 - 13 Jan 2002 VOL 136 ISS 2

Some records from 1974 to 1991 are derived from the ZIC/VINITI data file and provided by InfoChem.

This file contains CAS Registry Numbers for easy and accurate substance identification.

Crossover limits have been increased. See HELP RNCROSSOVER for details.

=>

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L1 STRUCTURE UPLOADED

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SCREENING COMPLETE - 204 REACTIONS TO VERIFY FROM

44 DOCUMENTS

100.0% DONE 204 VERIFIED SEARCH TIME: 00.00.01

0 HIT RXNS

0 DOCS

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
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10.

4936

PROJECTED VERIFICATIONS: PROJECTED ANSWERS:

3224 TO 0 TO

1550

L2

0 SEA SSS SAM L1 (

0 REACTIONS)

=> s ll sss full

FULL SEARCH INITIATED 13:47:57 FILE 'CASREACT'

SCREENING COMPLETE - 6846 REACTIONS TO VERIFY FROM 1131 DOCUMENTS

0 HIT RXNS

100.0% DONE 6846 VERIFIED

0 DOCS

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0 SEA SSS FUL L1 (0 REACTIONS)

L3

=>

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L4 STRUCTURE UPLOADED

=> s 14 full

FULL SEARCH INITIATED 13:52:01 FILE 'CASREACT' SCREENING COMPLETE - 6829 REACTIONS TO VERIFY FROM 1126 DOCUMENTS

100.0% DONE 6829 VERIFIED 5 HIT RXNS

4 DOCS

SEARCH TIME: 00.00.02

4 SEA SSS FUL L4 (5 REACTIONS)

=> d 1-4

L5 ANSWER 1 OF 4 CASREACT COPYRIGHT 2002 ACS

RX(2) OF 5

$$\begin{array}{c} \text{NH-C-OMe} & \xrightarrow{\text{C:}172222-30-9,} \\ \text{H_2C=-CH-CH-(CH_2)}_3\text{--CH=-CH_2} & \xrightarrow{\text{C:}172222-30-9,} \\ \end{array}$$

REF: Eur. Pat. Appl., 1035093, 13 Sep 2000

L5 ANSWER 2 OF 4 CASREACT COPYRIGHT 2002 ACS

RX(1) OF 1

O

NH-C-OMe

$$H_2C$$
= CH-CH-(CH₂)₃-CH=CH₂

O

NH-C-OMe

Benzene

O

NH-C-OMe

99%

REF: Ger. Offen., 19909600, 07 Sep 2000

L5 ANSWER 3 OF 4 CASREACT COPYRIGHT 2002 ACS

RX(1) OF 2

NHAc

$$H_2$$
C= CH- CH- (CH₂)₃- CH= CH₂
 $C:172222-30-9$,

Benzene

NHAc

 99%

REF: Ger. Offen., 19840108, 09 Mar 2000 NOTE: 14 h, 80.degree.

REF: Tetrahedron Lett., 39(34), 6175-6178; 1998

=> logoff
ALL L# QUERIES AND ANSWER SETS ARE DELETED AT LOGOFF
LOGOFF? (Y)/N/HOLD:.
COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION

FULL ESTIMATED COST

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